CLAIMS

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is as follows:

1. A coplanar waveguide (CPW) probe assembly, comprising:

at least one center probe element, each having a respective center probe contact point; and

at least one peripheral probe element, each having a respective peripheral contact point,

wherein a pitch of said at least one center contact and said at least one peripheral contact is adjustable.

2. The CPW probe assembly of claim 1, wherein a physical separation between said at least one center contact and said at least one peripheral contact is controlled by a longitudinal translation of a movable sleeve fitted to an outer wall of said CPW probe assembly.

3. The CPW probe assembly of claim 1, further comprising:

a spreader for urging said at least one peripheral probe element apart from said at least one center probe element.

4. The CPW probe assembly of claim 1, further comprising:

a shorting device that maintains an electrical contact between said at least one peripheral contact and an outer wall of said CPW probe as said pitch changes.

5. The CPW probe assembly of claim 2, wherein said movable sleeve is fitted to said outer wall as a threaded mechanism.

6. The CPW probe assembly of claim 2, further comprising:

a calibration indication associated with a position of said movable sleeve.

7. The CPW probe assembly of claim 4, wherein said shorting device comprises a conductive material in a compressed state that urges said at least one peripheral probe element apart from said at least one center probe element.

8. The CPW probe assembly of claim 7, wherein said shorting device comprises a metal spring.

9. A test probe assembly comprising:

a micro-coaxial cable having at least one center conductor and a conductive outer wall; and

a probe tip section comprising at least one center contact, each respectively extending from one of said at least one center conductor, and at least one peripheral contact, each electrically connected to said conductive outer wall,

wherein a pitch between said at least one center contact and said at least one peripheral contact is adjustable.

10. The test probe assembly of claim 9, wherein said probe is operable over a microwave range of wavelengths.

11. The test probe assembly of claim 9, further comprising:

a sleeve that is longitudinally movable along said outer wall,

wherein each said at least one peripheral contact is attached to said outer wall such that a longitudinal movement of said sleeve causes said adjustable pitch.

12. The test probe assembly of claim 11, wherein said outer wall incorporates a threaded interface and said sleeve includes an inner thread that engages therewith.

13. The test probe assembly of claim 9, further comprising:

a shorting device that maintains an electrical contact between said at least one peripheral contact and said outer wall substantially adjacent to where said at least one peripheral contact contacts a device under test.

14. The test probe assembly of claim 13, wherein said shorting device comprises a spreader that urges said at least one peripheral contact away from said at least one center contact.

15. The test probe assembly of claim 14, wherein said spreader comprises a metal spring.

16. The test probe assembly of claim 11, wherein said at least one peripheral contact is shaped to provide a taper so that said longitudinal movement of said sleeve compresses said at least one peripheral contact by moving along said taper shape.

17. The test probe assembly of claim 11, further comprising:

a calibration scale on said outer wall to provide an indication of a value of said pitch based on a position of said sleeve.

18. A method of testing an electronic circuit, said method comprising:

making an adjustment of a contact pitch on an air coplanar waveguide (CPW) probe having an adjustable contact pitch; and

placing contacts of said CPW probe in contact with test points of said electronic circuit.

19. The method of claim 18, wherein said electronic circuit operates in a microwave range of wavelength.

20. The method of claim 18, wherein said making an adjustment of said contact pitch includes moving a sleeve along an outer wall of said CPW probe.

21. The method of claim 20, wherein said sleeve includes an internal thread that engages a threaded section of said outer wall, and wherein said moving said sleeve includes rotating said sleeve to advance said sleeve along said threaded section.

22. A method of claim 18, wherein said making an adjustment comprises:

making a coarse adjustment based on a pitch indication on said probe; and

subsequently making a fine adjustment based on viewing probe tips of said probe under a magnification device.

23. A method of fabricating a micro-coaxial probe assembly, said method comprising:

attaching at least one peripheral probe tip element to an outer wall of a micro-coax assembly having at least one center conductor, said center conductor being extended to serve as an inner probe element for testing a test point, said at least one peripheral probe tip element being attached to said outer wall a predetermined distance from an end of said inner probe element to be used to contact a test point; and

incorporating an interface on said outer wall for a mechanism that allows said at least one peripheral probe tip element to be adjusted in separation from said at least one center conductor.

24. The fabrication method of claim 23, wherein said mechanism comprises a moveable sleeve that moves longitudinally along said outer wall, a longitudinal location of said sleeve maintaining a position of said at least one peripheral probe tip element for said separation.

25. The fabrication method of claim 24, wherein said mechanism further comprises a flexible member substantially adjacent to an end of said outer wall, said flexible member urging said at least one peripheral probe tip element to be separated from said at least one center conductor.